

Subject: INFO-HAMS Digest V89 #884  
To: INFO-HAMS@WSMR-SIMTEL20.ARMY.MIL

INFO-HAMS Digest                      Tue, 14 Nov 89                      Volume 89 : Issue 884

Today's Topics:

                    airport security (3 msgs)  
                         doppler vs. superDF  
            Letter from the FCC: 20M Maritime Mobile Net  
            Question about Ace Communications in Indianapolis

-----

Date: 14 Nov 89 22:33:15 GMT  
From: cs.utexas.edu!wuarchive!texbell!splut!jay@tut.cis.ohio-state.edu (Jay "you ignorant splut!" Maynard)  
Subject: airport security

In article <31830@cci632.UUCP> cb@cci632.UUCP (Just another hired gun (n2hkd)) writes:

>All the prevouis stated ideas (from the last year's news) put forth  
>the propostion that the RADIO would effect the airplanes EQUIPMENT!!!!.  
>So where's the technology difference?? Enquiring minds want to know....

Aircraft radios are tested and approved by the FAA. One of the tests is to insure that it does not interfere with other equipment aboard the aircraft. Your cellphone or ham HT doesn't have this testing and approval.

--

Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can  
jay@splut.conmicro.com            (eieio)| adequately be explained by stupidity.  
{attctc,bellcore}!texbell!splut!jay +-----  
Shall we try for comp.protocols.tcp-ip.eniac next, Richard? - Brandon Allbery

-----

Date: 15 Nov 89 04:32:39 GMT  
From: cs.utexas.edu!ut-emx!walt.cc.utexas.edu!rdd@tut.cis.ohio-state.edu (Robert Dorsett)  
Subject: airport security

In article <30500281@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:

>  
>> repairs, as I work for an ambulance company). At Sacramento Airport, I was  
>> also asked to place my pager (Motorola Bravo, little display pager) on the belt  
>> to be X-rayed. This thing is tiny, and I can't imagine anyone fitting a bomb  
>> into it (I can barely understand how Motorola gets a 900MHz receiver, LCD  
>> display, speaker, and vibrator in it! ;-).

>  
>There are some pretty small guns around.  
  
Yeah, and don't forget those phasers. NASTY buggers.  
  
:-)

Robert Dorsett  
Internet: rdd@rascal.ics.utexas.edu  
UUCP: ...cs.utexas.edu!rascal.ics.utexas.edu!rdd

-----  
  
Date: 14 Nov 89 22:03:35 GMT  
From: cs.utexas.edu!mailrus!sharkey!cfctech!teemc!mibte!gamma!thumper!  
pff@tut.cis.ohio-state.edu (Pete Ferris)  
Subject: airport security

In article <> karn@ka9q.bellcore.com (Phil Karn) writes:

>  
>I'm a fairly frequent flyer, and I almost always have an HT (an Icom  
>IC-32AT) in my carry-on briefcase.  
>

Ditto the '32AT, tho I have a Armadillo nylon case I'm fond of... :-) I imagine  
I've paid Mr. Crandall's mortgage payment more than once (if he has one!).  
Anyhow, I frequent the EWR <--> DFW <---> TUL route.

>My experience with US airport security has been VERY consistent. If I  
>remember to disconnect the antenna from the radio, no problem. But if I  
>leave the antenna on the radio, it looks sufficiently suspicious that the  
>X-ray operator invariably asks about it. Usually they want to see it, but  
>some times they'll ask "Is that a radio?" and they're satisfied with a  
>verbal answer.  
>

Hmmm. Hadn't made the connection (no pun intended!) as to antenna being on  
or off. I may check this. To bolster ones confidence on the topic of airport  
security, I'll share my "true story":

I recently made my trip - but last time it was a little different. A good  
friend had asked me if I could take a look at an extension phone he had in his  
garage. Fine. After I packed my bags, I realized I'd forgotten the tools.  
Having the room in my 'dillo bag and NOT in my suitcase, I threw the following

goodies into my carry on - among other things:

In addition to the '32AT, I had:

Butt-in test set (with amp & memories, etc.- outta look good on the x-ray, no?!), a Progressive Electronics 77M tone tracer & line aid (inductive amp / "sniffer" for the tone tracer - more electronics), a Fluke 87 DVM (Oh boy!), Paladin automatic strippers, about 25' of Teflon station cable, cable spudger, cable connectors, misc screwdrivers, etc; etc.

Well, I hadn't given this much thought until I walked down the long red carpet corridor at Newark. Then it hit me! I thought:"Omigod! I'm gonna miss my plane while I wait for a manager to show up and interrogate me...". Boy was I wrong! I kept my mouth shut, flung the bag on the conveyer, walked through the detector (with plastic handled-metal bladed flip knife, {thanks Apple!} in pocket). The gal watched the monitor - as I did - DIDN'T SAY A WORD. I'm not trained in operation of that hardware, but based on what I saw on the screen, I might've at least wanted a closer look!

As a test, leaving Tulsa (I knew I'd get to the airport early), I decided to leave the tools in my carry on. I was stopped immediately at the x-ray deal. The gal opened the bag looked at most of the items, and said:"Oh, you do field service?" I said:"Yeah, something like that!". "Oh okay..." and asked me for a business card (either to substantiate my "story" in case anything "happened" {in the air}, or else she liked me - in either case she never called! :-) ).

While neither event slowed me down enough to cause any real aggravation, and that's good, it does make me wonder if terrorists and other hombies need to go through the hassle of stuffing the PE inside of cassette player or ghetto blaster (or "Third World Briefcase" as I once heard them called!).

>Things are quite different at non-US airports. I usually bury my HT (if I >carry it at all) in my checked luggage. Cameras loaded with film are the

Dunt know about that, Phil, I haven't left the US of A in YEARS!

(rest of stuff deleted)

>Phil

73 all,  
Pete, N5KBD  
pff@thumper.bellcore.com

-----

Date: 15 Nov 89 03:10:37 GMT  
From: asuvax!anasaz!john@handies.ucar.edu (John Moore)

Subject: doppler vs. superDF

I got an email from someone at NCAR but lost the mail before I had a chance to reply, so I'm doing it here.

The question was essentially why I use both a doppler and a super-DF, and which is best.

The doppler has the following advantages:

- (1) it has no moving parts. This means that one person can drive a vehicle and read the doppler at the same time. The SuperDF requires you to rotate it to determine the bearing. I suppose you could fix mount it on the car and rotate the car, but that's a bit awkward also!
- (2) it can take bearings on short signals such as a ker-chunk.

The SuperDF has other advantages:

- (1) it is portable. It can be used on foot.
- (2) It gives very accurate bearings.
- (3) It works with weaker signals than available dopplers can process (although in theory the doppler should be better at this).
- (4) It costs less.

--

John Moore (NJ7E)                      mcdphx!anasaz!john asuvax!anasaz!john  
(602) 861-7607 (day or eve) long palladium, short petroleum  
7525 Clearwater Pkwy, Scottsdale, AZ 85253  
The 2nd amendment is about military weapons, NOT JUST hunting weapons!

-----  
Date: 15 Nov 89 01:51:46 GMT  
From: jupiter!karn@bellcore.com (Phil R. Karn)  
Subject: Letter from the FCC: 20M Maritime Mobile Net

John De Armond makes some excellent on-the-mark points, even if he speaks a bit stridently.

Like it or not, modern radios make it possible for almost anyone can be trained in a matter of minutes to operate them. But these same developments have greatly increased the gap between the skills necessary to merely operate a radio and the skills necessary to effectively design, manage and maintain complete communication \*systems\*.

I believe that the single most important role that hams could \*potentially\* provide to public service agencies is that of the technical systems consultant. Hams know (or should know) better than

most public service radio users how to build a makeshift repeater or phone patch, or how to track down and cure an acute intermod problem, or how to fix a broken power supply. We know (or should know) about things like frequency coordination and the propagation characteristics of different frequency bands. And yes, we know (or should know) how to solder coax connectors.

All of these skills (and many more) are definitely handy to have when an emergency strikes. But unlike the operation of a voice radio, they can't be taught in a couple of minutes. They *can*, however, be learned through the routine experience of being a ham. I submit that it is our practical technical skills, NOT OUR ABILITY TO OPERATE RADIOS, that make us potentially valuable in public service and emergency activities. This is one of the reasons I so strongly support the notion of a no-code license that puts the emphasis in amateur radio where it should be: on technical skills.

I had no problem at all in visualizing John's description of certain "volunteers" in his area; I've seen my share. My current pet peeves are the so called "traffic nets" that operate on the local 2m FM voice repeaters. Listening to these things is like hearing a time warp out of the WW II era. Even if you ignore the many wasted minutes on pointless formalities (e.g., check-ins from stations without traffic) the efficiency of an actual "message transfer" is abysmally low. (And then there's the single opening call for "emergency traffic" -- as though emergencies only happen when the net is in session, and only at that specific moment.)

I just tried an experiment. I read, out loud, printed English text for one minute. After the minute, I counted how many words I had read: 178. I'm a fairly fast speaker, so that should set a pretty generous upper limit on how fast traffic can be passed over a voice radio channel, e.g., by tape recording it at the receiver and playing it back more slowly for transcription. (I recall, from memory, that according to the Guinness Book of World Records the all-time record for fast talking in public was set by President Kennedy, who once topped 300 wpm.)

Actual traffic handlers don't seem to use tape recorders; in any event, they speak far more slowly, pausing frequently for confirmations from the guy at the other end who is in all likelihood scribbling it down furiously in longhand.

But let's do some calculations based on my wildly optimistic number of 178 words/minute anyway. If each word averages 6 characters, that's 1068 characters/minute or 17.8/sec. At 8 bits/character (a generous number) that's 142.4 bits/sec. In a 20 KHz RF channel, that's .00712 bits/sec/Hz. Pretty bad, even when compared to the ridiculously inefficient modems (by modern standards) that most of packet radio still

uses.

None of this is meant to disparage the appropriateness of voice communications in real-time, tactical situations, especially when the end parties can speak to each other directly (if the egos of the hams with the radios will let them, that is.) But using voice to pass formal message traffic when packet radio could have been used instead is just plain silly. Yet when the proposal was made to grant ARRL traffic handling awards to operators of packet stations, there was a strong hue and cry from the "tradition" crowd.

No wonder nobody takes us seriously.

Phil

-----  
Date: 15 Nov 89 02:09:41 GMT  
From: ubvax!ardent!tpavek@lll-winken.llnl.gov (Tom Pavek)  
Subject: Question about Ace Communications in Indianapolis

I'm planning to order a portable scanner from Ace in Indiana, and would like to hear from anyone who has dealt with them, or has any knowledge of their products.

They seem to have good prices, good features, and a 25 day trial period, but I've never seen the product in use. Their sales people seemed knowledgeable over the phone, quoting a favorable report on receiver sensitivity, and complete coverage of the 800 Mhz. etc., and they say they've been making various scanners for 10 years. So my question is: Has anybody had any bad experiences with these folks, and / or can someone give me any information pertaining to the AR 800, AR 900, or AR950??

Thanks in advance,  
Tom Pavek

-----  
End of INFO-HAMS Digest V89 Issue #884  
\*\*\*\*\*